

Cancel claims 1, 2, 7-10, 12-14, 24 and 27-36.

Cancel claim 16 and rewrite in independent form as new claim 37 as follows:

37. A process for cracking an olefin-rich hydrocarbon feedstock which is selective towards propylene in the effluent, the process comprising contacting a hydrocarbon feedstock having a maximum diene concentrated therein of 0.1 wt. % containing olefins having a first composition of at least one olefinic component with an MFI crystalline silicate catalyst having a silicon/aluminum atomic ratio of from 180 to 1000 to produce an effluent having a second composition of at least one olefinic component, the feedstock contacting the catalyst at an inlet temperature of from 500 to 600°C and being passed over the catalyst at an LHSV of from 10 to 30h⁻¹, the feedstock and the effluent having substantially the same olefinic content by weight therein, and the effluent having a higher propylene content than the feedstock.

Amend claim 17 as follows:

17. (Amended) A process according to claim 37, wherein the dienes have been removed from the feedstock prior to the cracking step by selective hydrogenation.